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***** R*E*M*A*R*K*S *****

Applicants herewith submit this Amendment in a bona fide attempt to advance the prosecution of this case and to answer each and every ground of rejection as set forth by the Examiner. Applicants respectfully request reconsideration of the above-identified application in view of the amendments to the specification, claims and drawings, and the remarks set forth below.

Applicant has amended its claims in accordance with the Examiner's suggestions and to clearly distinguish the claims over the cited references of record as relied upon by the Examiner. No new matter has been added.

The Examiner rejects Claims 9-11 on the basis that there is lack of antecedent basis. The dependency for these claims has been changed to provide for clear antecedent basis. Claim 9 now depends directly upon Claim 3. Claim 3 recites a male and a female tooth pattern. Claim 11 now affirmatively recites teeth and it should now be clear that the teeth are the element that is being limited by Claim 11.

Rejection of Claims 1-3, 9, 12-14 and 18-20 under §102(b) in View of Cole

Claims 1-3, 9 12-14 and 18-20 are rejected by the Examiner on the basis that they are anticipated by Cole. The Examiner states, "Cole teaches a swinging bucket centrifuge. The centrifuge rotor is best shown in Figure 2 and the sample tube (48) used with the rotor is best shown in Figure 4. The rotor (10) includes a generally annular core (14) and a series of spherical cutouts (38) in which a hemispherical cap member (52) is attached. The cap member has an underside with an internally threaded bore (*which screws in from underneath, see Fig. 2. In Examiner's paragraph 8 he recognizes that such a screw in structure has serious disadvantages. In discussing the advantages of teeth, the Examiner states, "This would save time when processing samples."*) The bore (64) receives the upper

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portion of the sample container body by matching the external threads (54) on the body (50) with the internal threads of the bore (64). . . ." (Emphasis and comments supplied.)

As amended, Applicant's Claim 1 now recites that the sample tubes are the "drop in" kind of sample tubes unlike the screw up type disclosed by Cole which the Examiner has recognized have serious disadvantages compared to Applicant's claimed structure. Additionally, the carousel used by Cole requires that the threaded structures be present. Clearly, the objects and advantages of Applicant's invention are more clearly accomplished by such a structure as compared with the screw up structure of Cole. Dropping a sample tube into the array is provides a simple and efficient structure to assist with initial and secure placement of a sample tube as compared with having to align the threads of the sample tube with the threads of a carousel. Also, Applicant's structure of a drop in sample tube allows it the advantage of initial correct placement of the sample tube on the sample carousel as compared with attempting to align the threads of each of the sample tube and the carousel.

The same logic can easily be applied to Claims 2 and 3 which derive the same advantages over the structure of Cole. It could certainly be argued that the thread pattern of Cole does not necessarily act as an anti-rotational structure. Given the correct amount of rotational energy and in the correct rotational direction, it is quite possible, if not likely that the sample tube may actually rotate relative to the carousel unlike Applicant's claimed structure. However, given the changes in the claims, this argument is reserved for a later time. The fact is that the anti-rotational structure of the drop in sample tube of Claims 1-3 is not anticipated, described or even remotely suggested by Cole.

Clearly, the compatible teeth of Claim 3 appear no where in Cole nor are they even remote suggested. It could be effectively argued that Cole represents a teaching in an entirely opposite direction. Cole does not seem to recognize the problem of rotation in the least. Rather, Cole is directed at connection of the sample tube and

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carousel. Here, Claims 1-3 are directed at anti-rotational structure and use the means of connection as the methodology for such anti-rotational structure. This is not anticipated, disclosed or remotely suggested by Cole.

All of the remarks with respect to Claims 1-3 are repeated regarding Claims 9 and 12 – 14. The technology of drop in type sample tubes is far different than the screw up type sample tubes and carousel of Cole.

With regard to the method claims, Claims 18 – 20, Applicant again repeats his above remarks. In order to have a method of using the disclosed Cole structure, one must first align the threads. Clearly no such step is required in Applicant's Claims 18-20 since there are no threads and while Applicant merely drops in his sample tube, Cole must pains-takingly align his. Again this is a teaching in an opposite direction, which is recognized by the Examiner in his own ¶8, where he attempts to combine a drive chuck of a tube cleaner with the unrelated structure of Cole.

Rejection of Claims 1-3, 8, and 12-14 under §102(b) in View of Grandone

Claims 1-3, 8, and 12-14 are rejected by the Examiner on the basis that they are anticipated by Grandone. The Examiner states that "Grandone teaches a locking rack and disposable **sample cartridge** for use in a plurality of openings in a carousel. The elements of the device most relevant to the instant claim are shown in Figures 2 and 7. The rack (30) rotates about a central core (50) defined by a circular inner wall (44) which contains openings (39) into which cartridges (20) are inserted. Each cartridge contains a locator nub (22) which is adapted to fit inside a corresponding locator notch (34) on the outer circumference (33) of the rack (30). . . ." (Emphasis supplied.)

It will immediately be noted that the sample cartridge of Grandone is very, very different from the relatively ordinary sample tube of Applicant's invention. As noted by the Grandone disclosure itself, it is not a sample tube but a cartridge. It is not obvious

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how the objects of Grandone could possibly be accomplished if Grandone were in the shape of a tube instead of the cartridge which it is.

The cartridge (20) must be oriented so that the locator nub (22) is aligned with a corresponding locator notch (34) and the dividing walls (31). The cartridge of Grandone can not be simply be dropped into the carousel as with Applicant's claimed structure as set forth in Claim 1. It must be oriented and aligned and then placed carefully so as to make sure that the notch and nub are aligned using the dividing walls.

The anti-rotational structure of Grandone certainly includes the nub and the notch. However, it also includes the dividing walls (31). Not only is it more intricate to align the cartridge nub with the notch, it also requires far more structure to do so.

Claim 3 specifically recites the limitation of "a female tooth pattern" and "a male tooth pattern." There is no such disclosure in Grandone. A nub and a notch for a cartridge is not even close to being the same as a male and a female tooth pattern. Of course, that is no surprise since Grandone's disclosure is for a specific type of cartridge and not a more typical type of sample tube like Applicant's structure.

Rejection of Claims 5-8, and 15-17 under §103(a) in View of Cole and Ricci et al

The Examiner has rejected the above claims under §103 in view of the hypothetical combination of Cole (discussed above) and Ricci et al. Ricci et al, according to the Examiner teaches "identifying indicia on the sample tube in the form of a bar code." The Examiner goes on to state, "The tube contains a zone for the placement of a bar code for identifying the tube."

Again, as amended Cole does not teach, suggest or disclose the drop in sample tube or compatible carousel as set forth in the claims, notably the above claims. As discussed above, Cole does not address the anti-rotational structure of Claim 1. A simple screw structure such as does not guarantee that the sample tube will not rotate

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in place on the carousel. As such Cole, even prior to the amendments above did not anticipate Applicant's claimed structure. Clearly with the changes in the claims, Cole is now a teaching in an opposite direction from Applicant's claimed structure.

The combination of Cole and Ricci et al is not suggested by either reference relative to one another and therefore is an impermissible combination. Cole is not an anti-rotational structure as noted above. In order to effectively have the structure of Applicant's device set forth in Claims 5-8, and 15-17 taught or rendered obvious by the hypothetical combination, there must be two elements, a drop in sample tube with anti-rotational structure and identifying indicia. Here, there is no suggestion in Cole to combine it with an identifying indicia. It is submitted that this is true because Cole was never designed to be anti-rotational device. Consequently, there was never any consideration of such a combination with identifying indicia. It would not occur to Cole to use identifying indicia since it is well known that a screw type device would need added structure in order to become an anti-rotational device. As a result, the Cole disclosure does not anticipate the above claims, but the Examiner is foreclosed from attempting to use it with such identifying indicia.

Thus, none of the claims set forth above are anticipated, rendered obvious or even suggested by the hypothetical combination of Cole and Ricci et al. Moreover, the combination is impermissible since Cole never suggests a Ricci et al structure and Ricci et al would most likely be combined with a structure that was specifically designed for anti-rotational movement by the sample tube against the carousel. Since Cole is not such a structure, there is no likelihood of the hypothetical combination suggested by the Examiner.

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Rejection of Claims 4 and 10 under §103(a) in View of Cole and Babson et

al

The Examiner has rejected the above claims under §103 in view of the hypothetical combination of Cole (discussed above) and Babson et al. Babson et al, according to the Examiner “teaches a tube washing system. . . . It would have been obvious to one of ordinary skill in the art to combine the teeth or gear teaching of Babson [sic] with the system of Cole. The use of teeth or gears as described by Babson [sic] would allow for mating of the tube with the carousel via a simple friction fit instead of having to screw the sample tube into the opening of the cap. . . .”

As stated by the Examiner and as correctly quoted above, Babson describes a tube washing system. Applicant does not understand how this remote art can be combined with the structure of Cole. Perhaps the Examiner can explain this on the next office action. There is no suggestion in Cole for a tube washing system. It is well known in the art of examining patent applications that in order to combine references that the examiner may not use applicant's own disclosure as the glue to bind those references.

Here that is exactly what the Examiner has done. Babson et al disclose a tube washing system which incidentally uses a drive chuck having teeth, Fig. 5. There is no disclosure in Babson et al of a drop in sample tube having anti-rotational structure or as Claim 4 recites, “gear tooth patterns” or as Claim 10 recites, “. . . wherein the teeth are spaced apart and the space between the teeth is in the range of between 0.35 mm and 0.50 mm.”

It is respectfully submitted that the only way the Examiner got from a drive chuck having teeth to a drop in sample tube with anti-rotational structure was using Applicant's own disclosure. This is impermissible hindsight and is a completely inappropriate use of Applicant's own disclosure. As such, the hypothetical combination should be immediately withdrawn from consideration.

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Additionally, even if the combination were made, it still does not yield Applicant's claimed structure as recited in Claims 4 and 10 as amended. There is no suggestion in either of the proposed references to adapting Cole's screw in sample tube with the teeth of Babson et al's drive chuck. Additionally, there is no suggestion in Cole, the base reference, that a drive chuck having teeth would be at all advantageous in the Cole structure. That suggestion came directly from Applicant's own disclosure.

The sample tube holder disclosed in Babson et al and shown in Fig. 7 is nothing like the compatible carousel structure necessary to accommodate the Applicant's recited sample tube. Please note the sample tube that is disclosed by Babson et al, Fig. 3 (140) is nothing like the one the Examiner says is readily apparent from the hypothetical union of Cole and Babson et al. Clearly, the Examiner is using the Applicant's own disclosure to remake the Babson et al sample tube. Babson et al has its own sample tube and there is no suggestion in Babson et al that the drive chuck with teeth would somehow be advantageous to use with either a Cole or a Babson et al sample tube. That suggestion could have only come from Applicant's own disclosure. Again, this is clearly impermissible.

Applicant's are unclear how the Examiner proposes to combine the drive chuck teeth of Babson et al with the sample tube of either Cole or Babson et al or for that matter any sample tube. In any case, it will be noted that Applicant's claimed structure as recited in Claims 4 and 10 recites male and female anti-rotational structure. There is no indication or statement by the Examiner how this would be accomplished using the Babson et al disclosure. There is no such anti-rotational structure on the holder of Babson et al or the carousel of Cole. Therefore, the Examiner is requested to immediately withdraw this hypothetical combination and rejection from the case.


CONCLUSION

Applicants herewith submit this Amendment in a bona fide attempt to advance the prosecution of this case and to answer each and every ground of rejection as set

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forth by the Examiner. Applicants respectfully request reconsideration of the above-identified application in view of the amendments to the specification, claims and drawings, and the remarks set forth above. If, after reading this Response A, the Examiner has any questions or issues which she would like to discuss with the Applicant's counsel in furtherance of the prosecution of this case, he is invited to contact the undersigned at the number given below.

Respectfully submitted,

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